REMARKS

Applicant thanks the Examiner for his careful attention to and detailed review of the present application.

The Examiner objected to the disclosure because elements described as either access or edge elements are not described consistently. To overcome the Examiner's objection, Applicant has replaced "access node" on page 9, lines 4, 7 and 23 with "edge node". The amendment to the disclosure is fully supported by the application as originally filed. No new matter has been introduced by way of the amendment.

The Examiner objected to claim 31 because "multiplers" is unclear. To overcome the Examiner's objection, the Applicant has replaced "multipers" with "multiplexers". The amendment to claim 31 is for correcting a typographical error. No new matter has been introduced by way of the amendment.

Applicant has amended claims 1, 6, 10 and 15 to clarify that at a first location, a first plurality of unmodulated optical wavelengths are generated, and at a second location, a second plurality of unmodulated optical wavelengths are generated. Applicant has amended claims 20 and 24 to clarify that at a first location, a plurality of unmodulated optical wavelengths are generated. Claims 20 and 24 have been amended to add the limitations of claims 21 and 25, respectively. Accordingly, claims 21 and 25 have been cancelled without prejudice. The amendments to claims 1, 6, 10, 15, 20 and 24 are fully supported by the application as originally filed, for example on page 4, lines 11-22. No new matter has been introduced by way of the amendments.

Claims 1, 6, 15, 20 and 24 have been amended to replace "an photonic" with "a photonic". Claims 2-4, 7-8, 11-13 and 16-17 have been amended to correct their formalities. Claim 7 has been amended to add "means for" before "transmitting". Claim 16 has been amended to add "means" before "for transmitting". Claims 13-14 have been amended to depend on claim 11. Claims 22 and 26 have been amended

to depend on claims 20 and 24, respectively. No new matter has been introduced by way of the amendments to claims 1-4, 6-8, 11-17, 20 22, 24 and 26.
The present application contains independent claims 1, 6, 10, 15, 20 and 24.

The Examiner rejected claims 1-29 under 35 U.S.C. 102(e) in view of Chang et al. (U.S. Patent No. 6,657,757), hereinafter referred to as Chang. The Examiner rejected claims 10, 11, 15, 16, 19-21, 24, 25, 28 and 30 under 35 U.S.C. 102(e) in view of Koehler (U.S. Patent No. 6,426,615). The rejections are respectfully traversed for reasons as set out below.

The present invention relates to a photonic network in which a plurality of unmodulated optical wavelengths are generated at a first location.

According to claims 1 and 6, one wavelength of the unmodulated optical wavelengths is selected and transmitted to a second location. At the second location, a second plurality of unmodulated optical wavelength are generated with reference to the transmitted one wavelength. According to claims 10 and 15, at a second location, a second plurality of unmodulated optical wavelength are generated. According to claims 20 and 24, a group of wavelengths is formed by grouping selected wavelengths of the unmodulated optical wavelengths; the group of wavelengths is transmitted and modulated at a second location; and the group of wavelengths is further passed to a third location.

Chang discloses a network having an optical layer. Figure 5 of Chang discloses a circuit switched backbone network, which has a plurality of network elements 501-507 and a NC&M 220. The NC&M determines connections to establish the link using routing tables (on col. 13, lines 1-6). Figure 5 and col. 12, lines 37-40 of Change disclose that a packet modulated at a wavelength W1 is sent from the network element 501 to the network element 503 via 502; the packet is modulated at a wavelength W2 at the network element 503, and the packet is sent from the network element 503 to 504. Col. 9, line 49-col. 10, line 12 of Chang discloses that a path from a source 124 to a destination 122 is selected using the wavelength conversion in the network element 121. Col. 15, line 65-col. 16, line 6 of Chang discloses that a packet is routed through the same path at a different wavelength by

wavelength conversion. Thus, Chang discloses converting a wavelength of a packet. Chang neither discloses nor suggests generating a plurality of unmodulated optical wavelengths.

Koehler discloses a WDM ring transmission system 100 having hubs 116 and 118. The hubs 116 and 118 communicate with network interfaces 112 and 114. Col. 2, lines 37-40 of Koehler discloses that optical signals are paired and each signal within a given pair is supplied to a respective hub. Col. 2, lines 50-65 of Koehler discloses that the network interfaces 112 and 114 include optical transmitters that emit optical signals at a respective one of wavelengths λ1-λ4 to the hubs 116 and 118. The network interfaces 112 and 114 output optical signals modulated at wavelengths λ1-λ4. Koehler neither discloses nor suggests generating a plurality of unmodulated optical wavelengths.

Hence it is respectfully submitted that claims 1-31 are new and unobvious in view of the cited references.

The Examiner rejected claims 1, 2, 5-7, 14, and 29 under 35 U.S.C. 103(a) in view of Koehler. The Examiner rejected claims 3, 4, 8, 9, 12,13, 17, 18, 22, 23, 26 and 27 under 35 U.S.C. 103(a) in view of Koehler and Sharma et al. (U.S. Patent No. 5,717,795, hereinafter referred to Sharma). The Examiner rejected claim 30 under 35 U.S.C. 103(a) in view of Chang. The Examiner rejected claim 31 under 35 U.S.C. 103(a) in view of Chang and Kartalopoulos ("Introduction to DWDM Technology" IEEE Press 2000. pp. 175).

As described above, Chang and Koehler neither disclose nor suggest the subject matters defined by claims 1-31.

Sharma discloses an optical wavelength division multiplexed network system. Figure 4 of Sharma discloses a multi-wavelength light source 71, which emits laser lights of different wavelengths λ1-λ3 and λ'1-λ'3 (col. 5, lines 46-53). The lights at wavelengths λ1-λ3 are send to node 61, while the lights at wavelengths λ'1-λ'3 are send to node 66. At each node 61-66, a light of one wavelength is dropped (col. 5, line 60-col. 6, line 21).

Sharma neither suggests nor teaches generating a second plurality of unmodulated optical wavelengths at a second location with reference to the predetermined one wavelength of the first plurality of optical wavelengths generated at a first location as recited in claims 1 and 6. Sharma neither suggests nor teaches generating a first plurality of unmodulated optical wavelengths at a first location and generating a second plurality of unmodulated optical signal as recited in claims 10 and 15. Sharma neither suggests nor teaches transmitting the group of wavelengths to second and third locations as recited in claims 20 and 24

Kartalopulos merely states a dense wavelength division multiplexing (DWDM) and a coarse WDM (CWCM). Kartalopulos does not add any teaching to the other references to render claim 31, which indirectly depends on claim 24, unpatentable.

Any cited references taken alone or in combination thereof neither suggest nor teach the subject matters defined by independent claims 1, 6, 10, 15, 20 and 24.

Hence, it is respectfully submitted that claim 1-31 are new and patentable in view of the cited references.

In view of the above amendments and remarks, and having dealt with all of the matters raised by the Examiner, early reconsideration and allowance of the application is respectfully requested.

Respectfully Submitted,

Dallas F. Smith, Reg. No. 34, 074
Agent for Applicant
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